



DEPARTMENT OF TRANSPORTATION
OFFICE OF TRANSPORTATION SOLUTIONS
PLANS AND SPECIFICATIONS FOR

CONTRACT NUMBER - T201206203.01

CENTRAL MAINTENANCE

FEDERAL AID NUMBER - ESTP-2012(23)

PRIMAVERA ID - 12-06203

CONTRACT TITLE - PAVEMENT & REHABILITATION - SOUTH I-III, 2012

PAGE 1 OF 37

PLANS PREPARED BY: Paul Farkas
DESIGN TECHNICIAN

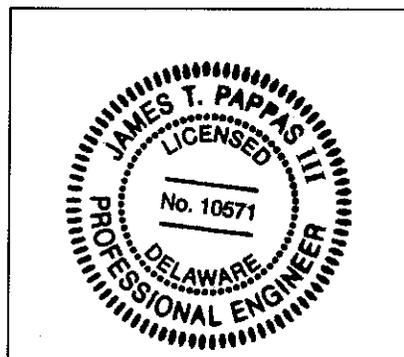
DATE RECOMMENDED: AUG 30, 2011

[Signature]
GROUP ENGINEER, CONSTRUCTION

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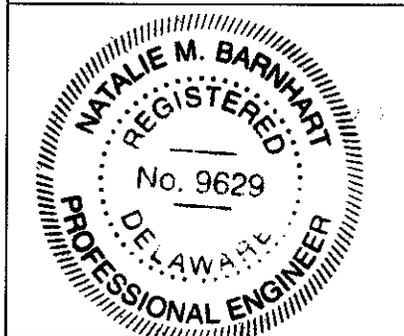
DATE RECOMMENDED: 9-2-11

James T. Pappas III
ASSIST. DIRECTOR, DESIGN



DATE RECOMMENDED: 9/6/11

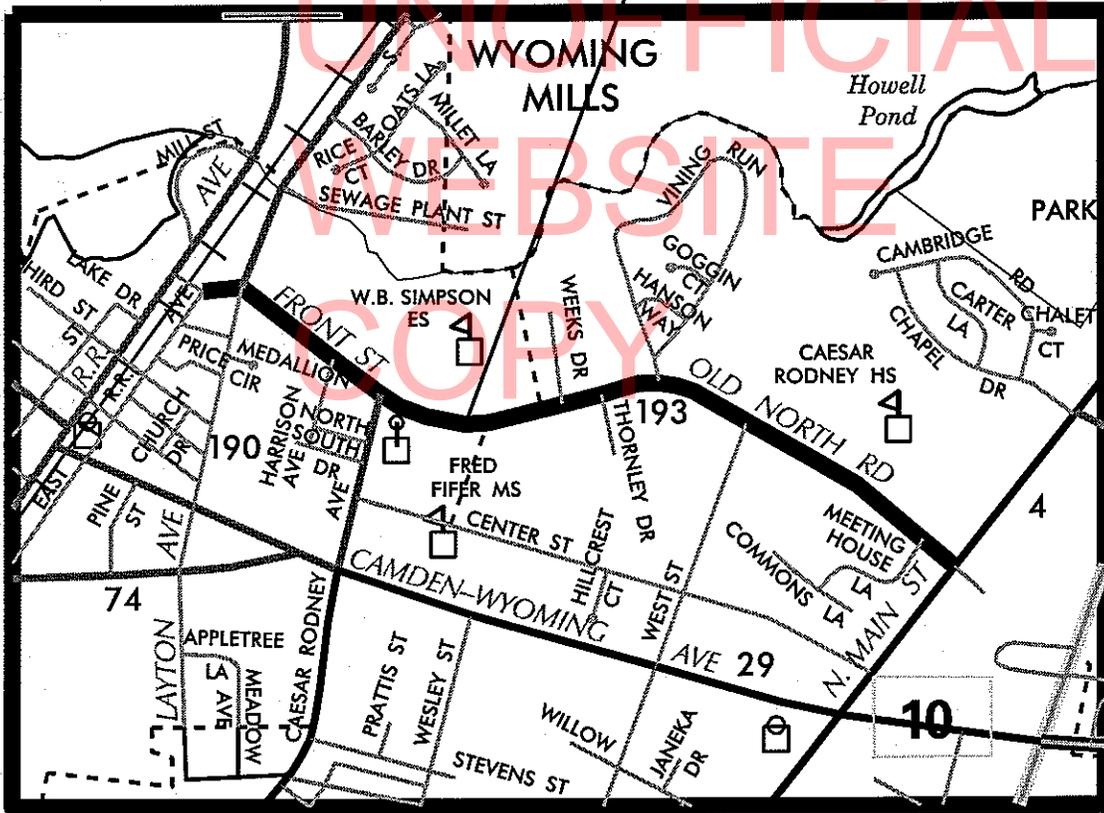
Natalie Barnhart
CHIEF ENGINEER



VARIOUS LOCATIONS

LOCATION MAP

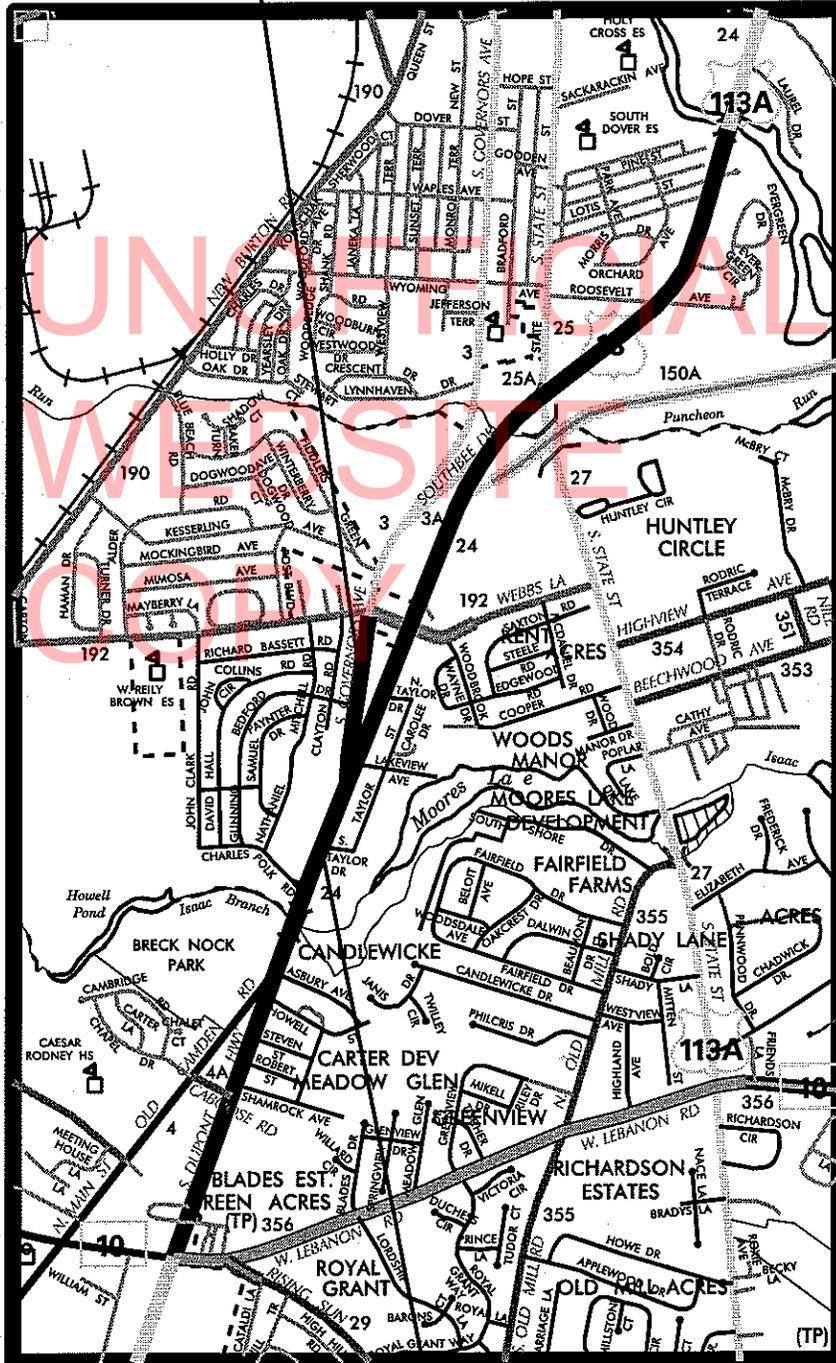
Location 1



VARIOUS LOCATIONS

Location 3

LOCATION MAP

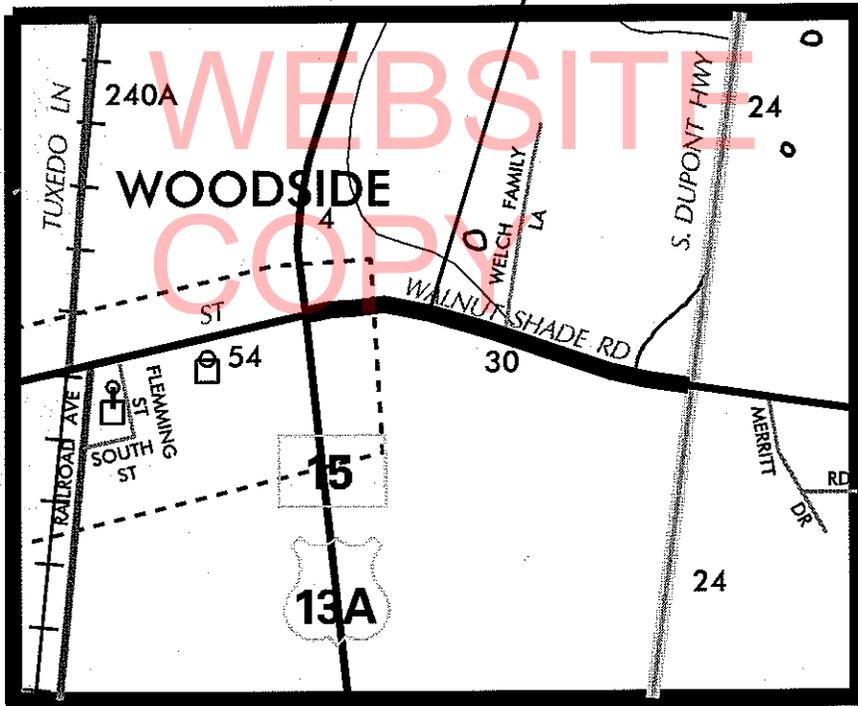


Location 2

VARIOUS LOCATIONS

LOCATION MAP

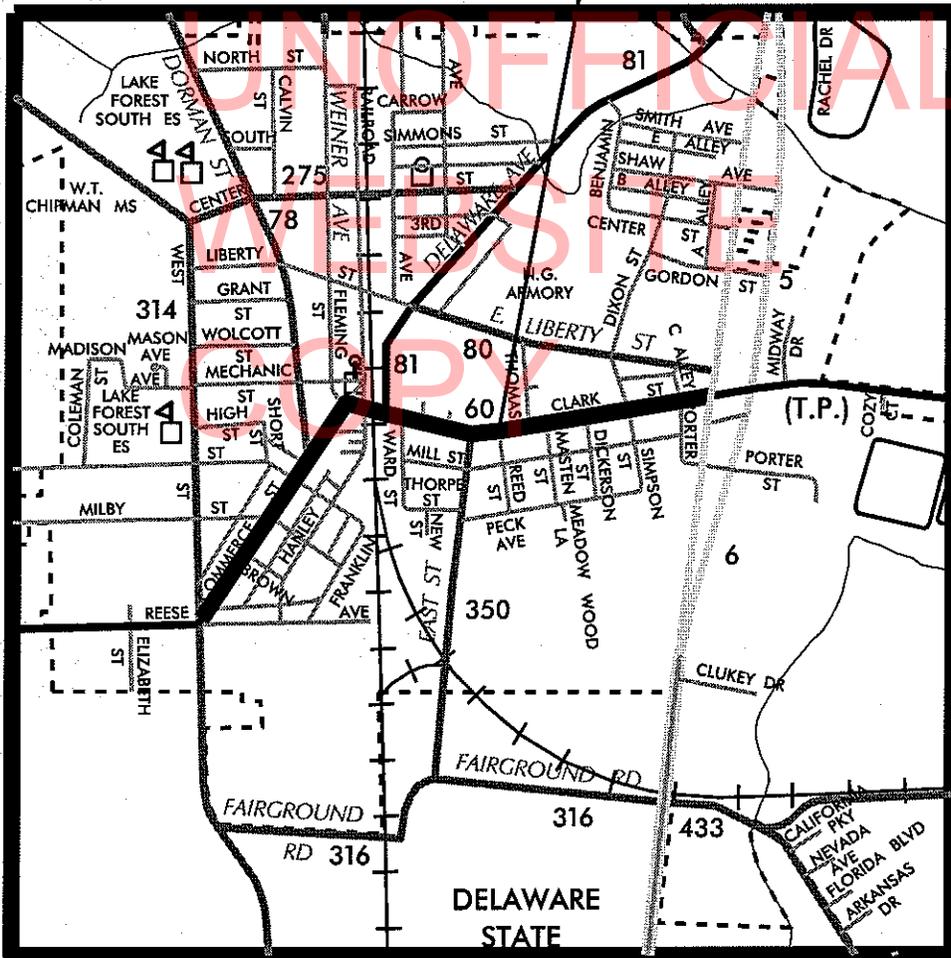
Location 4



VARIOUS LOCATIONS

LOCATION MAP

Location 5



PAVEMENT & REHABILITATION, SOUTH I-III, 2012

GENERAL CONTRACT PLAN NOTES

REVISED 7/11

GENERAL

1. CONSTRUCTION OF THIS CONTRACT SHALL CONFORM TO DELAWARE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED AUGUST 2001 AS AMENDED BY THE SUPPLEMENTAL SPECIFICATIONS, THE SPECIAL PROVISIONS, THE MOST RECENT STANDARD CONSTRUCTION DETAILS, DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THESE PLANS.
2. THE PURPOSE OF THIS CONTRACT IS TO MAKE GENERAL IMPROVEMENTS TO ROADS AND/OR STREETS WITHIN THE DISTRICT HEREIN SPECIFIED. DEPENDING ON FUND AVAILABILITY, THE DEPARTMENT RESERVES THE RIGHT TO ADD OR DELETE LOCATIONS AND/OR QUANTITIES FOR THIS CONTRACT. SUCH LOCATION OR QUANTITY ADDITIONS OR DELETIONS SHALL NOT BE CAUSE FOR AN INCREASE OR DECREASE IN ANY CONTRACT UNIT BID PRICES. NO ITEM PRICES ARE TO BE RENEGOTIATED DUE TO EITHER AN INCREASE OR DECREASE IN QUANTITY USAGE RESULTING FROM SAID ADDITIONS OR DELETIONS.
3. THE CONTRACTOR SHALL PROVIDE ALL RESIDENTS AND BUSINESSES WHO LIVE ADJACENT TO THE WORK ZONE A MINIMUM 48 HR. PRIOR WRITTEN NOTICE FOR THE START OF CONSTRUCTION WORK. THIS NOTIFICATION SHALL INCLUDE THE SCOPE OF WORK, WORKING HOURS, ANTICIPATED START AND COMPLETION DATES, CONTRACTOR NAME & ADDRESS, AND DELDOT CONTACT NUMBERS. FAILURE TO GIVE PROPER NOTICE WILL RESULT IN A SUSPENSION OF WORK REQUIRING NOTICE, UNTIL PROPER NOTICE IS PROVIDED. ACCESS TO ALL BUSINESSES AND RESIDENCES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS CONTRACT. ANY TEMPORARY CLOSURE OF A DRIVEWAY FOR TIE-IN PURPOSES SHALL BE COORDINATED WITH THE ENGINEER AND/OR PROPERTY OWNER IN ADVANCE OF THE CLOSURE.
4. THE CONTRACTOR SHALL SUBMIT THE REQUIRED COPIES OF A DETAILED PROGRESS SCHEDULE (PSC) AS OUTLINED IN STANDARD SPECIFICATION 108.04 PRIOR TO OR AT THE PRECONSTRUCTION MEETING. DETAILS SHALL INCLUDE A DESCRIPTION OF EACH WORK ACTIVITY, THE PLANNED DAYS OF WORK, MULTIPLE CREWS OR SHIFTS, AND SCHEDULED WORKING HOURS. DURING THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TWO-WEEK (OR AS REQUIRED) "LOOK AHEAD" SCHEDULES TO THE AREA ENGINEER/ MANAGER NO LATER THAN NOON OF EACH THURSDAY. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

MAINTENANCE OF TRAFFIC

5. THE CONTRACTOR SHALL BE REQUIRED TO SHOW PROOF THAT HE HAS SUFFICIENT APPROVED STRIPING MATERIALS ON HAND TO ENSURE STRIPING IS COMPLETED PRIOR TO FULL OPENING ROADWAY TO TRAFFIC.
6. AT THE END OF EACH DAY'S OPERATION AND BEFORE TRAFFIC IS RETURNED TO UNRESTRICTED ROADWAY USE, TEMPORARY STRIPING SHALL BE UTILIZED AT LOCATIONS THAT REQUIRE PERMANENT STRIPING, SHALL BE INSTALLED IN ACCORDANCE WITH THE TEMPORARY STRIPING POLICY. TEMPORARY PAVEMENT STRIPING MUST MATCH PERMANENT PAVEMENT STRIPING IN ALL REGARDS. TEMPORARY PAVEMENT MARKINGS SHALL BE PAID AT THE APPLICABLE CONTRACT UNIT PRICE. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE TEMPORARY MARKINGS IN GOOD CONDITION SUCH THAT THE PAVEMENT IS PROPERLY DELINEATED AT ALL TIMES. ANY REFRESHING OF THE TEMPORARY MARKINGS WILL BE AT THE CONTRACTOR'S EXPENSE.
7. ALL WORK SHALL BE PERFORMED IN A MANNER THAT WILL REASONABLY PROVIDE THE LEAST

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

GENERAL CONTRACT PLAN NOTES

PRACTICABLE OBSTRUCTION TO ALL ROAD USERS, INCLUDING VEHICULAR, PEDESTRIAN AND BICYCLE TRAFFIC, AND SHALL CONFORM TO THE REQUIREMENTS OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PART 6, INCLUDING ALL REVISIONS UP TO THE DATE OF ADVERTISEMENT FOR BIDS.

8. THE CONTRACTOR SHALL MAINTAIN ACCESS TO AND ALONG PEDESTRIAN FACILITIES AT ALL TIMES DURING CONSTRUCTION. EARTH, STONE AND GRAVEL SURFACES ARE NOT ACCEPTABLE FOR PROVIDING PEDESTRIAN ACCESS. WHERE PEDESTRIAN ROUTES ARE CLOSED OR BLOCKED, ALTERNATE PEDESTRIAN ACCESS SHALL BE PROVIDED USING TA-28 AND/OR TA-29 OF THE 2011 DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES OR TO THE SATISFACTION OF THE ENGINEER. PEDESTRIAN DETOUR ROUTES OR ALTERNATE PEDESTRIAN FACILITIES SHALL CONSIST OF ADA COMPLIANT FACILITIES TO THE LEVEL OF WHICH EXISTS ON THE PEDESTRIAN ROUTE. THE COST FOR ANY PROVISIONS SHALL BE INCIDENTAL TO ITEM 763XXX - MAINTENANCE OF TRAFFIC.

PEDESTRIAN MAINTENANCE OF TRAFFIC: THIS WORK SHALL CONSIST OF PROVIDING AND MAINTAINING AN ACCESSIBLE PEDESTRIAN ROUTE THROUGHOUT THE PROJECT'S LIMITS IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT OF 1990 (ADA) TITLE II, PARAGRAPH 35.130.

THE CONTRACTOR SHALL BE REQUIRED TO REVIEW EACH CURB RAMP LOCATION AND SUBMIT THE APPROPRIATE MAINTENANCE OF TRAFFIC DETAIL AND DEVICES TO THE ENGINEER FOR EACH LOCATION AT LEAST 2 WEEKS BEFORE CONSTRUCTION FOR REVIEW, COMMENT, AND APPROVAL. THE FOLLOWING CONSIDERATIONS SHALL BE TAKEN INTO ACCOUNT WHEN ADDRESSING ACCESSIBLE PEDESTRIAN MAINTENANCE OF TRAFFIC:

- ALL PEDESTRIANS, INCLUDING PERSONS WITH DISABILITIES, SHALL BE PROVIDED WITH A REASONABLY SAFE, CONVENIENT AND ACCESSIBLE PATH THAT REPLICATES AS MUCH AS PRACTICABLE THE EXISTING PEDESTRIAN FACILITIES.
- MAINTAIN ACCESS TO ALL BUSINESSES AND RESIDENCES AT ALL TIMES.
- PROVIDE PEDESTRIAN ACCESS THROUGH OR AROUND THE WORK ZONE. IF A DETOUR IS CHOSEN THE CONTRACTOR MUST SUBMIT THE DETOUR ROUTE TO THE ENGINEER FOR REVIEW AND APPROVAL. THE DETOUR ROUTE MUST MEET OR EXCEED THE CURRENT CONDITIONS.
- WORK SHOULD BE PHASED SO THAT ALL AREAS OF AN INTERSECTION/SIDEWALK PATH ARE NOT UNDER CONSTRUCTION AT THE SAME TIME UNLESS A CLEAR PATH IS PROVIDED AND IDENTIFIED.
- TRAFFIC CONTROL DEVICES AND OTHER CONSTRUCTION MATERIALS AND FEATURES SHALL NOT INTRUDE INTO THE USABLE WIDTH OF THE SIDEWALK, TEMPORARY PATHWAY OR OTHER PEDESTRIAN FACILITY.
- SIGNS AND OTHER DEVICES MOUNTED LOWER THAN 7FT ABOVE THE TEMPORARY PEDESTRIAN PATHWAY SHALL NOT PROJECT MORE THAN 4 IN. INTO ACCESSIBLE PEDESTRIAN ROUTE.

A SMOOTH, CONTINUOUS HARD SURFACE SHALL BE PROVIDED THROUGHOUT THE ENTIRE LENGTH AND WIDTH OF THE PEDESTRIAN ROUTE THROUGHOUT CONSTRUCTION. THERE SHALL BE NO CURBS OR VERTICAL ELEVATION CHANGES GREATER THAN ¼ IN. IN GRADE OR TERRAIN THAT COULD CAUSE TRIPPING OR BE A BARRIER TO WHEELCHAIR USE.

9. AN AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) CERTIFIED TRAFFIC CONTROL SUPERVISOR SHALL BE REQUIRED FOR ALL LOCATIONS SPECIFIED IN THE CONTRACT PLANS. A

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

GENERAL CONTRACT PLAN NOTES

COPY OF THE CERTIFICATION CARD FOR THE ATSSA TRAFFIC CONTROL SUPERVISOR SHALL BE SUBMITTED AT THE PRECONSTRUCTION MEETING. THE PAPER CERTIFICATE IS NOT ACCEPTABLE.

PAVEMENT MARKINGS

10. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS (INCLUDING BUT NOT LIMITED TO EXISTING STRIPING LENGTHS, LANE AND SHOULDER WIDTHS, TURN LANE LENGTHS, LOCATIONS OF STOP BARS, TURN ARROWS, CROSSWALKS AND RAILROAD CROSSINGS) THAT DEPICT THE EXISTING PAVEMENT MARKINGS FOR EACH PROJECT LOCATION. THESE DRAWINGS WILL BE REVIEWED BY THE DEPARTMENT'S TRAFFIC SECTION TO DETERMINE IF ANY CHANGES TO THE FINAL PAVEMENT MARKINGS ARE REQUIRED. FINAL PAVEMENT MARKINGS SHALL CONFORM TO ALL EXISTING PATTERNS UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

THE DEPARTMENT WILL PROVIDE STRIPING LAYOUT AT LOCATIONS WHERE NO PAVEMENT MARKINGS PREVIOUSLY EXISTED. IF DEPARTMENT FORCES PROVIDE STRIPING LAYOUT ON LOCATIONS WHERE MARKINGS PREVIOUSLY EXISTED, THEN THE CONTRACTOR SHALL REIMBURSE THE DEPARTMENT FOR THE LAYOUT COSTS.

UNLESS OTHERWISE DIRECTED BY THE ENGINEER, WHITE EDGE LINES SHALL WRAP AROUND THE RADIUS OF ALL SIDE STREETS AND MAJOR COMMERCIAL ENTRANCES TO A TANGENT POINT. YELLOW CENTERLINES SHALL BE CONTINUOUS AROUND MEDIAN ISLANDS. ALL DOUBLE YELLOW CENTERLINES SHALL BE PLACED IN A 5-6-5 CONFIGURATION (2 EACH, 5" YELLOW STRIPES WITH A 6" GAP BETWEEN).

11. ANY ERRONEOUS MARKING WILL NOT BE PAID FOR AND SHALL BE CORRECTED IMMEDIATELY AT THE CONTRACTORS EXPENSE. ERRONEOUS MARKINGS OR SHADOWS THAT EXCEED ONE (1) INCH IN WIDTH SHALL BE REMOVED BY EITHER SAND OR WATER BLASTING AS DIRECTED BY THE ENGINEER. NO OTHER REMOVAL METHODS WILL BE ALLOWED. A FLAT BLACK PAINT OR DRIVEWAY SEALER SHALL BE APPLIED IN THE AREA OF THE REMOVED MARKING TO MASK THE REPAIR. ANY DAMAGE TO THE PAVEMENT CAUSED BY REMOVAL OF ERRONEOUS MARKINGS SHALL BE REPAIRED / REPLACED TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTORS EXPENSE.

12. STOP LINES "BARS" SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.16 OF THE 2011 DELAWARE MUTCD.

13. ALL CROSSWALKS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 3B.18 OF THE 2011 DELAWARE MUTCD.

TRAFFIC SIGNAL NOTES

14. TRAFFIC DETECTION LOOPS SHALL BE PLACED IN THE FINAL WEARING SURFACE UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

15. TRAFFIC DETECTION LOOPS THAT ARE CURRENTLY 5'x7' SHALL BE REPLACED WITH LOOPS THAT ARE 6'x6' AT THE SAME LOCATION. STOP BAR DETECTION LOOPS SHALL BE THE SAME SIZE AS CURRENTLY EXISTING, AND SHOULD BE PLACED STARTING TWO FEET BEHIND THE STOP BAR, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. IF SEPARATE SIGNAL PLANS HAVE BEEN DEVELOPED, THE PLANS SUPERSEDE THIS NOTE.

PROJECT

16. UNLESS SPECIFIED, OVERLAY WIDTHS SHALL MATCH EXISTING WIDTHS.

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

GENERAL CONTRACT PLAN NOTES

17. THE COST OF CLIPPING BACK THE EDGES OF THE ROADWAY, SHOULDERS, AND THE FIRST 3' OF UNPAVED DRIVEWAY ENTRANCES, PICKING UP AND DISPOSING OF WASTE AND EXCESS MATERIAL, AND CLEANING THE EXISTING PAVEMENT PRIOR TO OVERLAY SHALL BE INCIDENTAL TO SECTION 401(.). PREPARING UNPAVED DRIVEWAY ENTRANCES BEYOND THE FIRST 3' SHALL BE PAID UNDER THE APPROPRIATE CONTRACT ITEMS: 202000 AND/OR 30200X.

18. BUTT JOINTS SHALL BE PLACED AT ALL INTERSECTING HOT MIX ROADS AND ANY OTHER LOCATIONS AS DIRECTED BY THE ENGINEER. BUTT JOINTS AT DRAINAGE STRUCTURES NOT TO BE RESURFACED SHALL BE AS PER THE INCLUDED PLAN DETAIL OR LOCATION NOTES. BUTT JOINTS CUT PRIOR TO THE DAY OF THE PAVEMENT OVERLAY SHALL BE RAMPED WITH HOT MIX TRM. IN MILLING AREAS, THERE WILL BE NO SEPARATE PAYMENT FOR BUTT JOINTS. AFTER PAVEMENT MILLING, ALL TRANSVERSE VERTICAL DIFFERENCES, RAISED EDGES OF MANHOLES, CATCH BASINS, WATER VALVE BOXES, ETC...SHALL BE RAMPED WITH HOT-MIX TRM AT A 20:1 OR FLATTER SLOPE PRIOR TO OPENING THE ROADWAY TO TRAFFIC. PAVEMENT MILLINGS WILL NOT BE ALLOWED FOR USE AS RAMPING MATERIAL.

19. TAPER MILLING IS INTENDED FOR MILLING IN THE AREA OF FIXED STRUCTURES (I.E. CURBS GUARDRAIL, ETC.) THE MILLED DEPTH AT THE STRUCTURE SHALL BE THE DEPTH OF THE PROPOSED OVERLAY AND 0" AT A DISTANCE OF +/- 6½' FROM THE STRUCTURE. THE COMPUTED DEPTH FOR PAYMENT PURPOSES IS THE AVERAGE OF THE TWO DEPTHS.

20. ALL MILLED MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE STATED.

21. EXCAVATION FOR P.C.C. CURBS, SIDEWALK OR VALLEY GUTTER SHALL BE INCIDENTAL TO THE BID PRICE FOR THESE RESPECTIVE ITEMS. EXCAVATED MATERIAL, NOT NEEDED ON THE PROJECT, SHALL BE REMOVED FROM THE CONTRACT AT THE CONTRACTORS EXPENSE. ITEM 732XXX, TOPSOIL, SHALL BE USED AS BACKFILL MATERIAL FOR CURB AND SIDEWALK AS DIRECTED BY THE ENGINEER. TOPSOIL SHALL BE SCREENED/SIFTED SO AS NO MATERIAL GREATER THAN .5" IS PRESENT IN MATERIAL USED FOR BACKFILL. AT EACH LOCATION, BACKFILLING SHALL BE PERFORMED IMMEDIATELY UPON REMOVAL OF FORMS FOR CURB OR SIDEWALK WORK. COMPLETE RESTORATION, TOPSOIL, SEEDING, AND REMOVAL OF ALL MATERIALS FOR CURB & GUTTER OR SIDEWALK; SEALING OF VALLEY GUTTERS AND PARGING OF CATCH BASINS, SHALL BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS OF COMPLETION OF THE ITEM OF WORK. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

22. ALL ADJUSTMENTS SHALL BE MADE NO MORE THAN SEVEN (7) CALENDAR DAYS PRIOR TO THE PLACEMENT OF THE FINAL COURSE OF HOT MIX UNLESS OTHERWISE APPROVED BY THE ENGINEER. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

23. ALL PAVING, INCLUDING TURN LANES, SHOULDERS AND INTERSECTIONS, IS TO BE COMPLETED WITHIN SEVEN (7) CALENDAR DAYS FROM THE TIME THE AREA WAS MILLED. FAILURE TO COMPLY WILL RESULT IN A SUSPENSION OF ALL OTHER CONTRACT WORK WITH TIME CHARGES CONTINUING TO BE ASSESSED.

24. THE CONTRACTOR SHALL TAKE CARE IN REMOVING PAVEMENT AROUND UTILITIES, BUTT JOINTS, CURBING, ETC. SO THAT EXISTING PAVEMENT BEYOND THE SPECIFIED DEPTHS IS NOT DAMAGED. ANY DAMAGE CAUSED BY THE CONTRACTOR'S OPERATIONS MAY RESULT IN PLACING LEVELING COURSES AT THE CONTRACTOR'S EXPENSE. THE REMOVAL AND CLEAN UP OF THE HOT MIX RESIDUE WEDGE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

GENERAL CONTRACT PLAN NOTES

REMAINING AFTER MILLING OPERATIONS SHALL BE INCIDENTAL TO THE MILLING ITEM. THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS (RPM'S) SHALL BE INCIDENTAL TO THE APPLICABLE MILLING AND/OR RECLAMATION ITEMS.

25. ALL PORTLAND CEMENT CONCRETE MUST BE RECEIVED FROM AN APPROVED PRODUCTION PLANT UNLESS OTHERWISE APPROVED BY THE ENGINEER. ONLY CALIBRATED VOLUMETRIC CONCRETE TRUCKS WILL BE PERMITTED TO PROVIDE ON-SITE MIXTURES. THIS PERTAINS TO BOTH WORK OCCURRING DURING NORMAL WORKING HOURS AND NIGHTTIME RESTRICTED WORK.

26. DRAINAGE INLETS, WHICH ARE 4' GREATER IN DEPTH AND ARE SLATED FOR REPAIR WILL HAVE STEPS INSTALLED IN ACCORDANCE WITH SECTION 708.07 OF THE STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR ITEM 710001.

27. THE PORTLAND CEMENT CONCRETE USED WITHIN ITEM 701002 - ADJUST AND REPAIR EXISTING MAN HOLES AND ITEM 750000 - ADJUST WATER VALVE BOX SHALL CONFORM TO THE REQUIREMENTS OF CLASS A CONCRETE AS STATED WITHIN SECTION 503.02 OF THE DEPARTMENT'S STANDARD SPECIFICATIONS.

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DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT NUMBER- T201206203

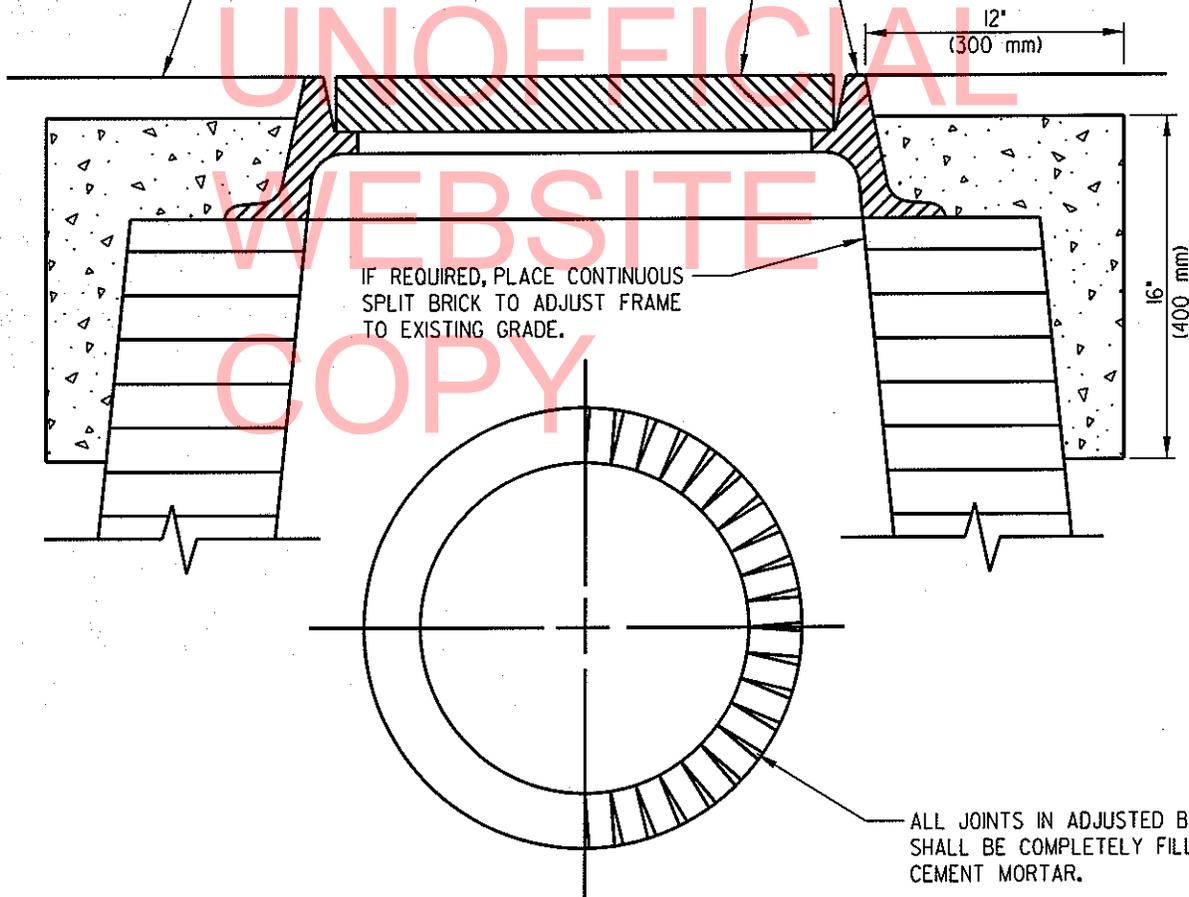
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CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET

REMOVE AND DISPOSE OF EXISTING FRAME AND COVER AS DIRECTED BY OWNER IF NOT UTILIZED IN THE ADJUSTMENT. PLACE NEW OR EXISTING FRAME AND COVER (AS REQUIRED), TO CORRECT ELEVATION AND RECOLLAR. NEW FRAME AND COVER (IF REQUIRED) TO BE PROVIDED BY OWNER.

REMOVE HOT MIX AND CONCRETE COLLAR FROM AROUND MANHOLE.



ADJUSTING AND REPAIRING MANHOLE

N.T.S.

NOTE: MANHOLES IN CONCRETE ROADWAYS SHALL BE SAWCUT FULL DEPTH TO THE SPECIFIED DIMENSION PRIOR TO ANY ADJUSTMENT BEING MADE. THE SAWCUTTING SHALL BE INCIDENTAL TO ITEM 710002.

ANY ADJUSTMENTS AND/OR RELOCATIONS OF MUNICIPALLY OWNED SEWER OR WATER FACILITIES SHALL BE DONE IN ACCORDANCE TO THE RESPECTIVE AGENCIES STANDARD SPECIFICATIONS AS DIRECTED BY THE ENGINEER.

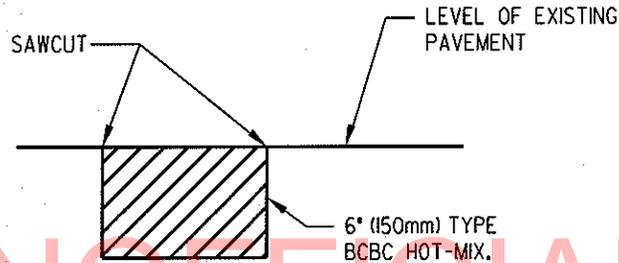
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CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET



HOT MIX PATCH DETAIL

N.T.S.

NOTE: ALL EDGES TO BE SAWCUT. CUTTING BY USE OF AIR HAMMERS MAY BE SUBSTITUTED FOR SAWCUTTING IF THE AREA IS TO BE OVERLAID UNDER THE SAME CONTRACT. THIS DETAIL SHALL BE USED FOR ALL HOT-MIX PATCHES UNLESS OTHERWISE SHOWN ON THE PLANS.

WHEN PCC PATCHING IS REQUIRED ON A COMPOSITE PAVEMENT(HOT-MIX OVER CONCRETE), THE CONTRACTOR MAY ELECT TO ELIMINATE ANY GRADE DIFFERENCE BETWEEN THE TOP OF THE CONCRETE PATCH AND THE TOP OF THE EXISTING HOT-MIX PAVEMENT BY EITHER PLACING HOT-MIX TRM MATERIAL(PAYMENT UNDER ITEM 402000) OR PLACING CONCRETE FLUSH WITH EXISTING HOT-MIX PAVEMENT(ADDITIONAL CONCRETE PAID AS ITEM 503503). IF CONCRETE IS PLACED FLUSH WITH EXISTING HOT-MIX, THE MILLING OF THE CONCRETE WILL BE PAID FOR AS MILLING HOT-MIX.

P.C.C. PATCHING NOTES

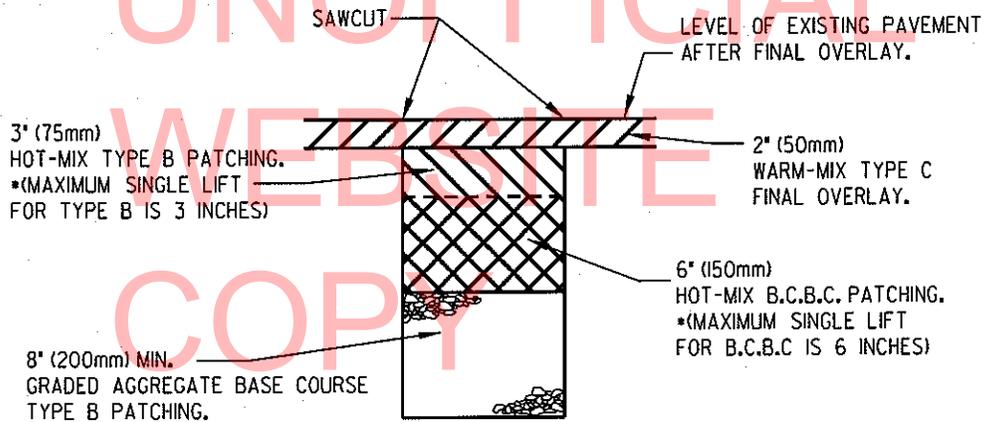
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CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET



HOT-MIX PATCHING DETAIL FOR
UTILITY TEST PIT ON LOCATION I

N.T.S.

NOTE: ALL EDGES TO BE SAWCUT. CUTTING BY USE OF AIR HAMMERS MAY BE SUBSTITUTED FOR SAWCUTTING IF THE AREA IS TO BE OVERLAID UNDER THE SAME CONTRACT. THIS DETAIL SHALL BE USED FOR ALL HOT-MIX PATCHES UNLESS OTHERWISE SHOWN ON THE PLANS.

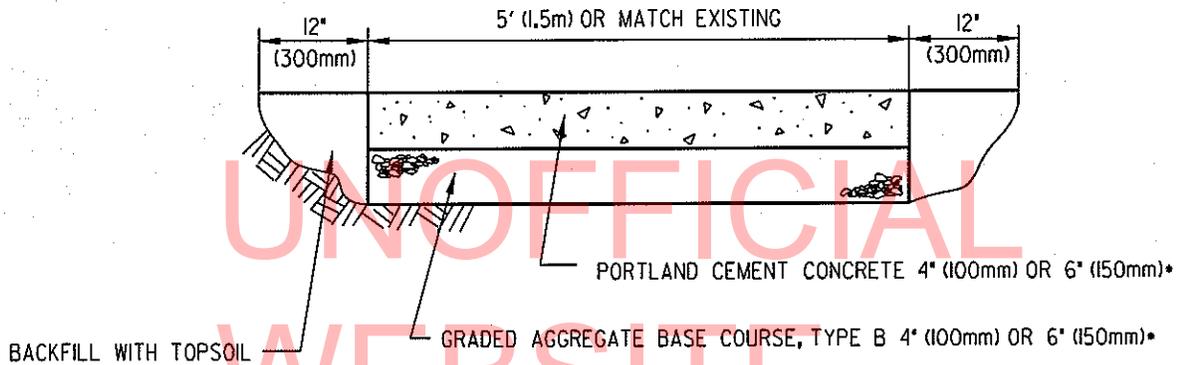
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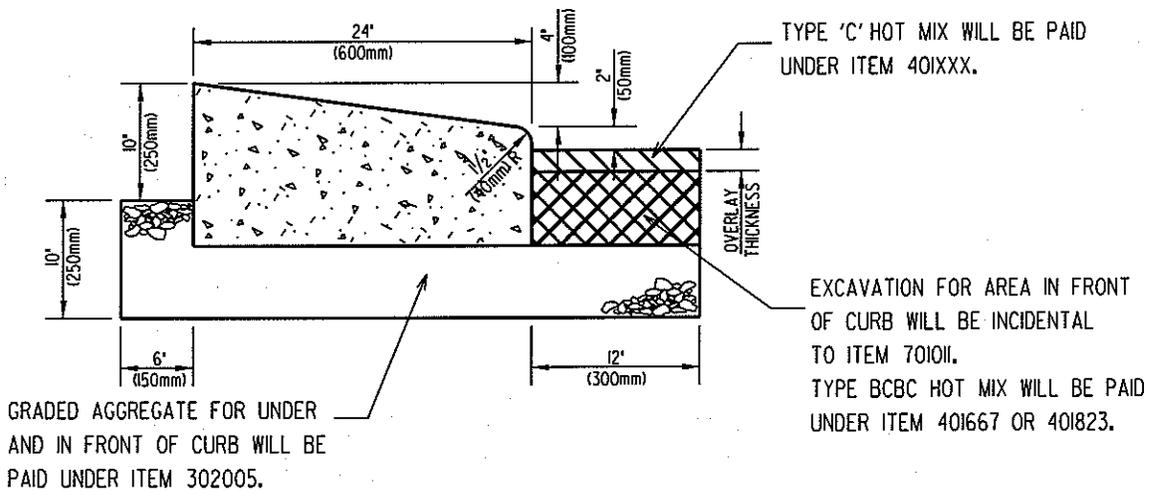
CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET



P.C.C. SIDEWALK
N.T.S.

- NOTE: 6" (150mm) CONCRETE OVER 6" (150mm) GRADED AGGREGATE TO BE USED FOR DRIVEWAY PLACEMENT



P.C.C. CURB TYPE 2
N.T.S.

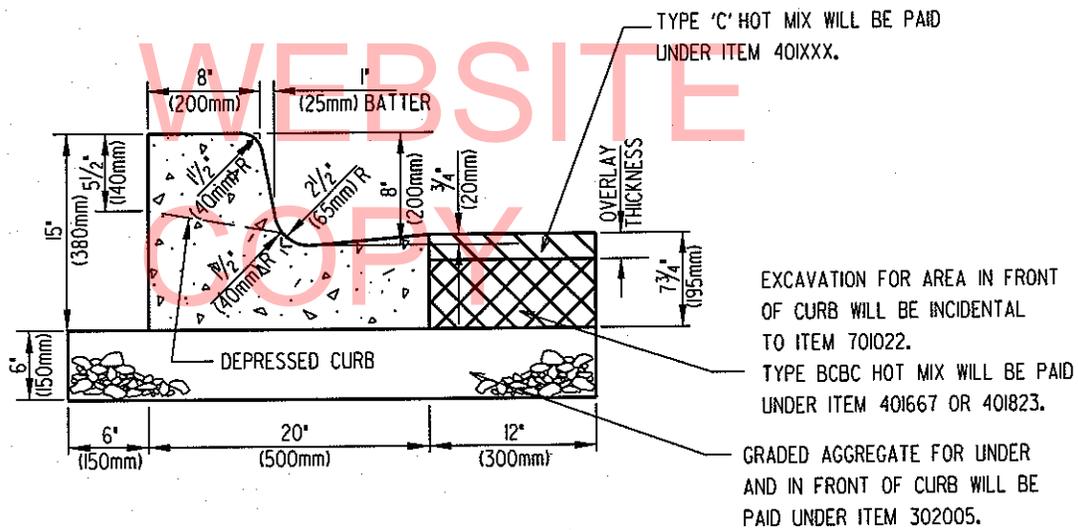
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DETAILS SHEET



INTEGRAL P.C.C. CURB & GUTTER TYPE 3-8

N.T.S.

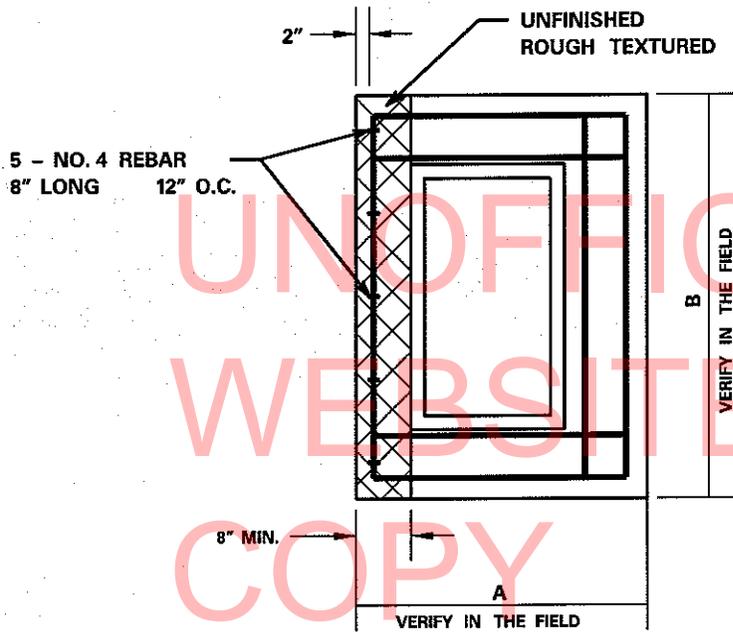
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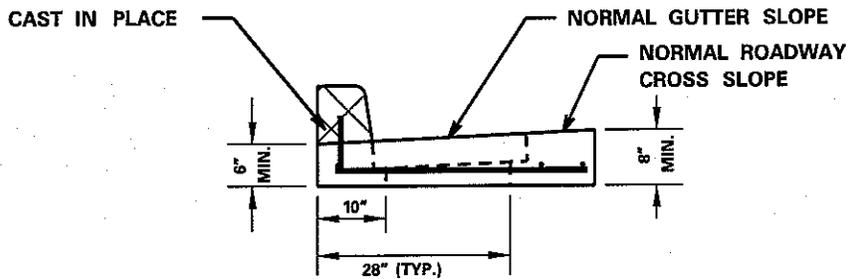
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CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET



	A	B
PWBD-1	44"	60"
PWBD-2	52"	70"



PRECAST INLET TOP CONVERSION
WITHOUT CURB OPENING

N.T.S.

DELAWARE DEPARTMENT OF TRANSPORTATION

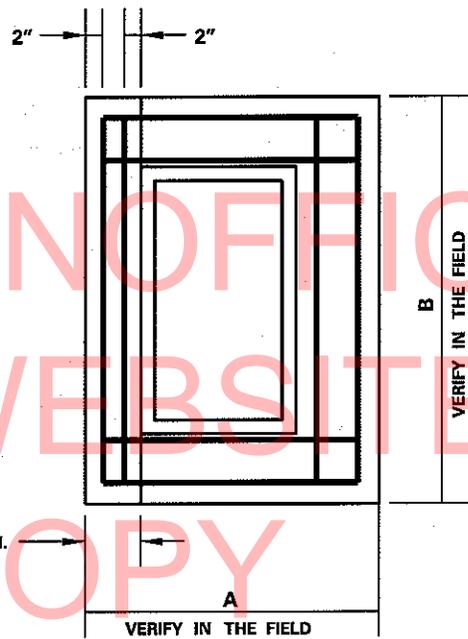
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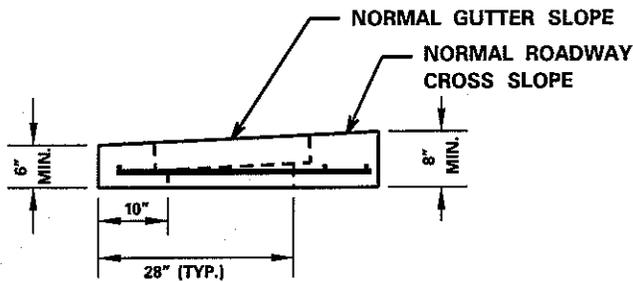
CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET

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	A	B
PWBD-1	44"	60"
PWBD-2	52"	70"



PRECAST INLET TOP CONVERSION
WITHOUT CURB OPENING

N.T.S.

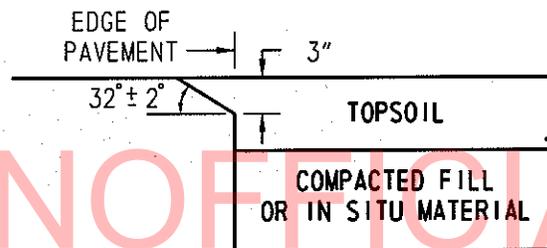
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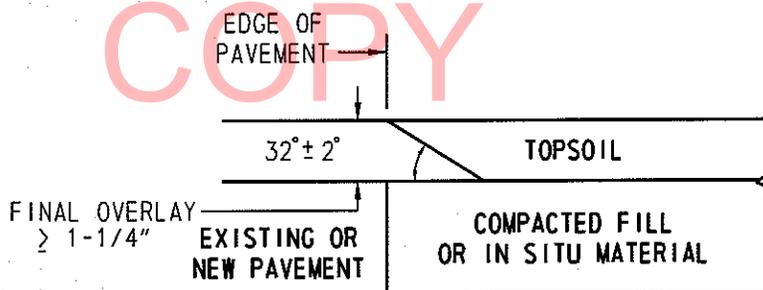
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CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET



CONCRETE PAVEMENTS
NOT TO SCALE



HOT-MIX PAVEMENTS AND OVERLAYS
NOT TO SCALE

SAFETY EDGE DETAIL
NOT TO SCALE

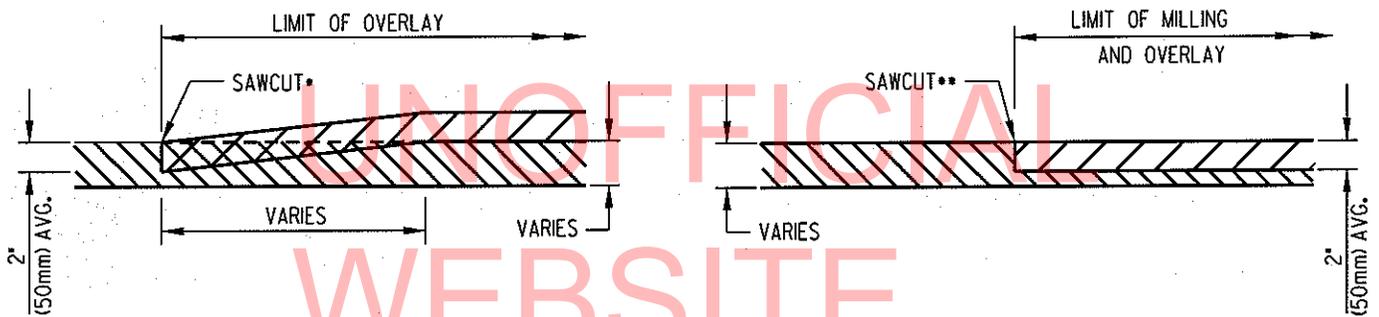
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CENTRAL MAINTENANCE VARIOUS LOCATIONS

DETAILS SHEET



LEGEND

	— PROPOSED OVERLAY
	— EXISTING PAVEMENT
	— EXISTING PAVEMENT TO BE REMOVED

**BUTT JOINT
FOR OVERLAY SECTION***

PAYMENT UNDER ITEM 761001.
*SAWCUT IS INCIDENTAL TO ITEM 761001.

LEGEND

	— PROPOSED FULL WIDTH MILLING AND HOT MIX OVERLAY
	— EXISTING PAVEMENT (TO REMAIN)

**HOT MIX JOINT
FOR FULL WIDTH MILLING SECTION****

PAYMENT INCIDENTAL TO ITEM 760XXX, MILLING.
**SAWCUT SHALL BE PAID UNDER ITEM 762001.

NOTES:

- THE FOLLOWING LENGTHS ARE BASED ON THE POSTED SPEED OF THE ROADWAY:
1. LESS THAN 50 MPH = 20 FT (6m) PER 1" (25mm) OF OVERLAY DEPTH.
 2. EQUAL TO OR GREATER THAN 50 MPH = 30 FT (9.1m) PER 1" (25mm) OF OVERLAY DEPTH.
 3. AT STOP SIGNS = 15 FT (4.6m) PER 1" (25mm) OF OVERLAY DEPTH.

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CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 1 FRONT ST/OLD NORTH RD(K193) - (CAMDEN-WYOMING) FROM RAILROAD TO OLD CAMDEN RD(K4)

LENGTH 1673.352 m 5490 L.F. AADT 5097

GENERAL IMPROVEMENTS

HM PATCHING, 1 1/2" MILLING AND 1 1/2" WARM-MIX TYPE C (64-22,C) FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 1

208000	EXCAVATION AND BACKFILLING FOR PIPE TRENCHES	4.00 C.Y.
209003	BORROW, TYPE C	2.50 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	405.00 TON
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	1.00 C.Y.
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	2,140.00 TON
401823	WMA, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	370.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	19.00 TON
406001	HOT-MIX PATCHING	1,400.00 SY-IN
701010	PORTLAND CEMENT CONCRETE CURB, TYPE 1-8	4,500.00 L.F.
705001	P.C.C. SIDEWALK, 4"	4,000.00 S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	330.00 S.F.
705008	CURB RAMP, TYPE 1	2,160.00 S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	1,710.00 S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	2.00 EACH
708062	FURNISH DRAINAGE INLET FRAME(S)	2.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	12.00 EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	18.00 EACH
732004	TOPSOIL (TON)	128.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	722.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743051	** FLAGGER, KENT COUNTY, STATE	803.00 HOUR
743063	** FLAGGER, KENT COUNTY, STATE, OVERTIME	120.00 HOUR
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	440.00 L.F.
746776	LOOP DETECTOR SPLICE	4.00 EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	1,684.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	27,450.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	3,367.00 S.F.

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CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 1 FRONT ST/OLD NORTH RD(K193) - (CAMDEN-WYOMING) FROM RAILROAD TO
OLD CAMDEN RD(K4)

LENGTH 1673.352 m 5490 L.F. AADT 5097

GENERAL IMPROVEMENTS

HM PATCHING, 1 1/2" MILLING AND 1 1/2" WARM-MIX TYPE C (64-22,C) FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 1

748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	13,725.00 L.F.
748554	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, PEDESTRIAN SYMBOL	11.00 EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	21.00 EACH
750000	ADJUST WATER VALVE BOXES	17.00 EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	819.00 S.Y.
760507	PROFILE MILLING, HOT-MIX	37,515.00 SY-IN
762001	SAW CUTTING, HOT MIX	5,350.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	229.00 L.F.
763502	MAINTENANCE OF RAILROAD TRAFFIC	1.00 L.S.
763621	CONSTRUCTION ENGINEERING, RE-SURFACING	1.00 L.S.

** DENOTES FIXED PRICE ITEM

DELAWARE DEPARTMENT OF TRANSPORTATION

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CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 1 FRONT ST/OLD NORTH RD(K193) - (CAMDEN-WYOMING) FROM RAILROAD TO OLD
CAMDEN RD(K4)

COMMENTS:

1. RECOMMENDED M.O.T. CASE NO. TA-17 (TRAVEL LANES).
. CASE NO. TA-4 (SHOULDERS).
. CASE NO. TA-29 (SIDEWALK).
. CASE NO. TA-46 (RAILROAD).
2. DAYTIME WORK HOURS: 9:00A - 3:30P.
3. NO WORK SHALL BE PERMITTED WHILE AREA SCHOOLS ARE IN SESSION(CAESAR RODNEY).
4. ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER.
5. DO NOT MILL AND OVERLAY THRU LAYTON AVE/NEW BURTON ROAD INTERSECTION, SKIP OVER.

6. M.O.R. NOTES

NORFOLK SOUTHERN

- .2 PER DAY (FREIGHT)*
- .2 PER NIGHT (FREIGHT)*

*NO PASSENGER SERVICE IS INVOLVED.

THE PAVEMENT AND REHABILITATION CONTRACT MILLING AND FINAL OVERLAY WILL TIE INTO THE R/R CROSSING AT THE R.O.W. LIMITS (TYPICALLY AT EXISTING HOT-MIX JOINT IF PRESENT.)

7. UTILITY TEST PIT

A UTILITY TEST PIT SHALL BE EXCAVATED FOR EXISTING SINKHOLE LOCATED @ ENTRANCE TO PHARSALIA RESIDENTIAL DEVELOPMENT LOCATED BETWEEN THE TRAVEL LANE AND SHOULDER PAVEMENT AS DIRECTED BY THE FIELD ENGINEER. THE PURPOSE IS TO IDENTIFY THE CAUSE OF THE EXISTING SINKHOLE AND NOTIFY THE APPROPRIATE UTILITIES RESPONSIBLE TO EFFECTIVELY REPAIR THE EXISTING PROBLEM ISSUE.

THE TEST PIT SHALL BE PAID UNDER ITEM 208000 - EXCAV. & EMBANKMENT.

REFERENCE DETAIL SHEET FOR PATCHING OF TEST PIT ONCE REPAIRS ARE COMPLETED.

DELAWARE DEPARTMENT OF TRANSPORTATION

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CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 2 US13, SOUTH DUPONT HWY(K24), N.B. & S.B. - (CAMDEN/DOVER) FROM HMJ
SOUTH OF DE10, LEBANON RD(K29) TO ST. JONES RIVER BRIDGE

LENGTH 9381.744 m 30780 L.F. AADT 38487

GENERAL IMPROVEMENTS

PATCHING, 2" MILLING AND 2" WARM-MIX FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 2

212001	UNDERCUT EXCAVATION, PATCHING	8.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	55.00 TON
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	8.00 C.Y.
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	266.00 TON
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	7,210.00 TON
401823	WMA, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	110.00 TON
401833	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 76-22, (NON- CARBONATE STONE)	13,550.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	175.00 TON
406001	HOT-MIX PATCHING	1,600.00 SY-IN
503001	PATCHING P.C.C. PAVEMENT, 6' TO 15', TYPE A	320.00 S.Y.
503006	DOWEL BARS	640.00 EACH
503501	CRACK AND JOINT SEALING LESS THAN 3/4" WIDE	1,700.00 L.F.
503503	** PATCHING CONCRETE	2,528.00 SY-IN
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 2	240.00 L.F.
701022	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 3-8	120.00 L.F.
705002	P.C.C. SIDEWALK, 6"	2,000.00 S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	30.00 S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	21.00 EACH
708062	FURNISH DRAINAGE INLET FRAME(S)	21.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	94.00 EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	6.00 EACH
716502	CONVERTING EXISTING CATCH BASIN TO DRAINAGE INLET	21.00 EACH
732004	TOPSOIL (TON)	424.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	5,133.00 S.Y.
743003	ARROWPANELS, TYPE C	57.00 EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	226.00 EA-DY

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**CENTRAL
MAINTENANCE**

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 2 **US13, SOUTH DUPONT HWY(K24), N.B. & S.B. - (CAMDEN/DOVER) FROM HMJ
SOUTH OF DE10, LEBANON RD(K29) TO ST. JONES RIVER BRIDGE**

LENGTH 9381.744 m 30780 L.F. AADT 38487

GENERAL IMPROVEMENTS

PATCHING, 2" MILLING AND 2" WARM-MIX FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 2

743007	** TRAFFIC OFFICERS	565.00 HOUR
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	57.00 EA-DY
743051	** FLAGGER, KENT COUNTY, STATE	3,392.00 HOUR
743063	** FLAGGER, KENT COUNTY, STATE, OVERTIME	509.00 HOUR
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	9,460.00 L.F.
746776	LOOP DETECTOR SPLICE	100.00 EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	2,472.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	184,680.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	4,943.00 S.F.
748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	480.00 L.F.
748502	RAISED/RECESSED PAVEMENT MARKER	385.00 EACH
748529	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND	32.00 S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	92,340.00 L.F.
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	150.00 EACH
749688	INSTALLATION OF 4" DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	43.00 EACH
749689	INSTALLATION OF 4" DIAMETER HOLE, GREATER THAN 6" DEPTH	6.00 EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	186.00 S.Y.
760507	PROFILE MILLING, HOT-MIX	350,969.00 SY-IN
762001	SAW CUTTING, HOT MIX	6,030.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	1,228.00 L.F.
763621	CONSTRUCTION ENGINEERING, RE-SURFACING	1.00 L.S.

** DENOTES FIXED PRICE ITEM

CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 2 US13, SOUTH DUPONT HWY(K24), N.B. & S.B. - (CAMDEN/DOVER) FROM HMJ SOUTH OF DE10, LEBANON RD(K29) TO ST. JONES RIVER BRIDGE

COMMENTS:

1. RECOMMENDED M.O.T. CASE NO. TA-35 (TRAVEL LANES).
 . CASE NO. TA-4A (SHOUDLERS).
 . CASE NO. TA-29 (SIDEWALK).
2. NIGHTTIME WORK HOURS: 8:00P - 6:00A.
3. ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER.
4. COORDINATION WITH ADJACENT CONTRACTOR FOR THE KENT COUNTY FORCE MAIN PROJECT NO. 1890-27 MAY BE NECESSARY FOR WORK SCHEDULING, M.O.T. LANE CLOSURES AND SIGNAGE.
5. ITEM 748027 12" THERMO-PLASTIC SHALL BE USED FOR THE GORE STRIPING.
6. ITEM 748529 PREFORMED SYMBOLS/PATTERN IS FOR STOP BARS ON NORTHBOUND CONCRETE PADS @ STATE ST. INTERSECTION.
7. TYPICAL EXISTING PAVEMENT FOR P.C.C. PATCHING IS 5 +/- INCHES OF HOT-MIX OVER 9 +/- INCHES OF P.C.C. CONCRETE.
8. ANY CURB REPLACEMENT REQUIRED TO MATCH THE EXISTING CURB THAT IS NOT P.C.C. TYPE 2 SHALL BE PAID AS CURB & GUTTER TYPE 3 ITEM 701022.
9. DO NOT OVERLAY EXISTING P.C.C. PADS, PLACE CRACK AND JOINT SEAL AROUND THE PERIMETER OF THE PAD AFTER FINAL OVERLAY TO BE PAID UNDER ITEM 503501.
10. AN APPROVED INTERSECTION DESIGN PLAN SHEET FOR THE US13/DE10 INTERSECTION, SOUTH SIDE MEDIAN SHALL BE PROVIDED AT THE TIME OF PRE-CON. THE WORK CONSISTS OF MINOR MODIFICATION TO THE P.C.C. MEDIAN AND PAVEMENT TO IMPROVE THE SOUTHBOUND TURNING TRAFFIC RADIUS. THE ASSOCIATED ITEMS HAVE BEEN INCLUDED IN THIS ESTIMATE.
11. HOT-MIX OVERLAY NOTES*

 USE 76-22 (NC) TYPE C WARM-MIX FOR TRAVEL LANES AND INTERSECTIONS.
 USE 64-22 (C) TYPE C WARM-MIX FOR TURN LANES, MEDIAN CROSSOVERS AND OUTSIDE SHOULDERS.
 *THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS SHALL BE INCIDENTAL TO THE MILLING.
 THE TYPICAL MILL AND OVERLAY LIMITS AT MAJOR INTERSECTIONS CONTINUE BACK TO EXISTING HOT-MIX JOINTS AND/OR AS DIRECTED BY THE FIELD ENGINEER.
12. PWBD CONVERSIONS

 1 @ DE10.
 1 @ KENT COUNTY MOTORS, SHOULDER.
 1 @ SOUTH TAYLOR DR, SHOULDER.
 1 @ PIZZADILI ENT.
 1 @ SOUTH GOVERNORS AVE, MEDIAN.
 3 @ WEBBS LANE.
 1 @ PUNCHEON RUN MEDIAN, SOUTH SIDE.
 1 @ LOTUS ST, MEDIAN.
 2 @ ST JONES BRIDGE MEDIAN.
 2 @ LOTUS ST.

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PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 2 US13, SOUTH DUPONT HWY(K24), N.B. & S.B. - (CAMDEN/DOVER) FROM HMJ SOUTH
OF DE10, LEBANON RD(K29) TO ST. JONES RIVER BRIDGE

- 1 @ TOWNSEND BROS. ENT.
- 1 @ WENDY'S/BURGER KING ENT'S.
- 2 @ VALERO ENT. - NORTH.
- 1 @ VALERO ENT. - SOUTH.
- 1 @ USED AUTO LOT ENT.
- 1 @ DAWSON BUS ENT.

13. ADD S.S.D.W.S. (DOMES)

-
- 1. LABOR DEPT. ENTRANCE - SOUTHBOUND SIDE
 - 2. RITE AID ENTRANCE - SOUTHBOUND SIDE

THIS LOCATION SHALL MEET THE TOLERANCES OF SUBSECTION 401580 - RIDE QUALITY OF
HOT-MIX PAVEMENT REQUIREMENTS, AS SPECIFIED IN THE SPECIAL PROVISIONS.

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CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 3 SOUTH GOVERNORS AVE(K3) - (DOVER) FROM US13(K24) TO HMJ @ WEBBS
LANE(K192)

COMMENTS:

1. RECOMMENDED M.O.T. CASE NO. TA-17 (TRAVEL LANES).
. CASE NO. TA-4 (SHOULDERS).
. CASE NO. TA-29 (SIDEWALK).
2. NIGHTTIME WORK HOURS: 8:00P - 5:00A.
3. ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER.
4. COORDINATION WITH ADJACENT CONTRACTOR FOR THE KENT COUNTY FORCE MAIN PROJECT NO. 1890-27 MAY BE NECESSARY FOR WORK SCHEDULING, M.O.T. LANE CLOSURES AND SIGNAGE.
5. ITEM 748027 12" THERMO-PLASTIC SHALL BE USED FOR THE GORE STRIPING.
6. PWBD CONVERSION TO DRAINAGE INLET AT RODNEY VILLAGE ENTRANCE.

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CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 4

WALNUT SHADE RD(K30) FROM UPPER KING HWY(K4) TO HMJ @ US13(K24)

LENGTH 1743.456 m 5720 L.F. AADT 4892

GENERAL IMPROVEMENTS

HM PATCHING AND 2" WARM-MIX TYPE C (64-22,C) FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 4

202000	EXCAVATION AND EMBANKMENT	67.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	17.00 TON
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	54.00 TON
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	760.00 TON
401823	WMA, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	208.00 TON
406001	HOT-MIX PATCHING	800.00 SY-IN
708060	REPLACE DRAINAGE INLET GRATE(S)	4.00 EACH
708062	FURNISH DRAINAGE INLET FRAME(S)	4.00 EACH
716502	CONVERTING EXISTING CATCH BASIN TO DRAINAGE INLET	4.00 EACH
732004	TOPSOIL (TON)	50.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	808.00 S.Y.
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	5.00 EA-DY
743051	** FLAGGER, KENT COUNTY, STATE	138.00 HOUR
743063	** FLAGGER, KENT COUNTY, STATE, OVERTIME	21.00 HOUR
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	16.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	9,700.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	16.00 S.F.
748502	RAISED/RECESSED PAVEMENT MARKER	30.00 EACH
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	9,700.00 L.F.
761001	BUTT JOINTS, HOT MIX	475.00 S.Y.
762001	SAW CUTTING, HOT MIX	670.00 L.F.

** DENOTES FIXED PRICE ITEM

CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 4 WALNUT SHADE RD(K30) FROM UPPER KING HWY(K4) TO HMJ @ US13(K24)

COMMENTS:

1. RECOMMENDED M.O.T. CASE NO. TA-17 (TRAVEL LANES).
CASE NO. TA-4 (SHOULDERS).
2. DAYTIME WORK HOURS: 9:00A - 3:30P.
3. NO WORK SHALL BE PERMITTED WHILE AREA SCHOOLS ARE IN SESSION (POLYTECH).
4. ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER.
5. GABC ITEM 302005 AND QUANTITY IS FOR UNIMPROVED DRIVEWAYS.
6. WIDEN ROAD WIDTH 1.5' +/- IN AREAS WHERE MINIMAL SHOULDERS ARE NOT PRESENT. EXCAVATE 6" IN DEPTH, PLACE BACK 6" BCBCP AND THEN FINAL OVERLAY.
7. EXTEND WEST END LIMIT NEAR UPPER KING HWY JUST ENOUGH TO REMOVE "HUMP" @ K & R GRAPHICS ENTRANCE.
8. PWBD CONVERSIONS

1 @ GOOSE CREEK ENTRANCE.
1 @ RIGHT HAND TURN LANE ONTO SOUTHBOUND US13.
2 @ RIGHT HAND TURN LANE INTO HAPPY HARRYS.
9. THE CONTRACTOR SHALL CAREFULLY REMOVE AND RESET ALL MAILBOXES TO MAINTAIN MAIL SERVICE AS DIRECTED BY THE ENGINEER. ANY DAMAGES INCURRED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND/OR REPLACE. THE CONTRACTOR SHALL RELOCATE MAILBOXES AS REQUIRED BY THE PROPOSED GEOMETRICS AND AS DIRECTED BY THE ENGINEER. WHEN RELOCATING MAILBOXES IN OPEN SECTIONS, THE FACE OF THE MAILBOX SHALL SET BACK 8 INCHES FROM THE EDGE OF THE PAVED SHOULDER. THE BOTTOM OF THE MAILBOX SHALL BE SET 46 INCHES ABOVE THE ROADWAY SURFACE. THE COST FOR ALL WORK AND MATERIALS SHALL BE INCIDENTAL ITEM 202000 - EXCAVATION AND EMBANKMENT.

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PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 5

COMMERCE ST(K60) - (HARRINGTON) FROM HMJ @ REESE AVE. TO US13(K5)

LENGTH 1481.328 m 4860 L.F. AADT 9939

GENERAL IMPROVEMENTS

HM PATCHING, 2" MILLING AND 2" WARM-MIX TYPE C (76-22,NC) FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 5

401823	WMA, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	46.00 TON
401833	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 76-22, (NON- CARBONATE STONE)	2,455.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	22.00 TON
406001	HOT-MIX PATCHING	800.00 SY-IN
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	410.00 S.F.
705008	CURB RAMP, TYPE 1	1,080.00 S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	5,510.00 S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	3.00 EACH
708062	FURNISH DRAINAGE INLET FRAME(S)	3.00 EACH
710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	13.00 EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	19.00 EACH
732004	TOPSOIL (TON)	134.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	1,620.00 S.Y.
743003	ARROWPANELS, TYPE C	30.00 EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	14.00 EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	120.00 EA-DY
743007	** TRAFFIC OFFICERS	300.00 HOUR
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	30.00 EA-DY
743051	** FLAGGER, KENT COUNTY, STATE	1,200.00 HOUR
743063	** FLAGGER, KENT COUNTY, STATE, OVERTIME	180.00 HOUR
744505	ADJUST OR REPAIR EXISTING CONDUIT JUNCTION WELL	3.00 EACH
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	320.00 L.F.
746776	LOOP DETECTOR SPLICE	4.00 EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLAST IC	1,604.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	38,880.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	3,208.00 S.F.
748502	RAISED/RECESSED PAVEMENT MARKER	61.00 EACH

DELAWARE DEPARTMENT OF TRANSPORTATION

CONTRACT T201206203

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CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 5

COMMERCE ST(K60) - (HARRINGTON) FROM HMJ @ REESE AVE. TO US13(K5)

LENGTH 1481.328 m 4860 L.F. AADT 9939

GENERAL IMPROVEMENTS

HM PATCHING, 2" MILLING AND 2" WARM-MIX TYPE C (76-22,NC) FULL WIDTH OVERLAY.

COMMENTS:

Please see attached sheets for comments

MATERIAL ESTIMATE FOR LOCATION 5

748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	194,400.00 L.F.
750000	ADJUST WATER VALVE BOXES	15.00 EACH
760507	PROFILE MILLING, HOT-MIX	43,200.00 SY-IN
762001	SAW CUTTING, HOT MIX	1,100.00 L.F.
763502	MAINTENANCE OF RAILROAD TRAFFIC	1.00 L.S.
763621	CONSTRUCTION ENGINEERING, RE-SURFACING	1.00 L.S.

** DENOTES FIXED PRICE ITEM

CENTRAL
MAINTENANCE

PAVEMENT & REHABILITATION, SOUTH I-III, 2012

LOCATION 5 COMMERCE ST(K60) - (HARRINGTON) FROM HMJ @ REESE AVE. TO US13(K5)

COMMENTS:

1. RECOMMENDED M.O.T. CASE NO. TA-17 (TRAVEL LANES).
 . CASE NO. TA-4 (SHOULDERS).
 . CASE NO. TA-29 (SIDEWALK).
 . CASE NO. TA-46 (RAILROAD).
2. NIGHTTIME WORK HOURS: 8:00P - 5:00A.
3. ON THE MAIN CONSTRUCTION ROAD AND ALL INTERSECTING ROADS, "ROAD WORK AHEAD AND END" SIGNS FACING THE TRAFFIC SHALL BE PLACED AT 1500', 1000' AND 500' APPROACHING THE WORK ZONE. IN THOSE CASES, WHERE IT IS DIFFICULT TO MEET THE ABOVE CRITERIA BECAUSE OF DISTANCE LIMITATIONS, THE SIGN SHALL BE PLACED AS DIRECTED BY THE FIELD ENGINEER.
4. THE REMOVAL OF EXISTING RAISED PAVEMENT MARKERS SHALL BE INCIDENTAL TO THE MILLING OPERATION.

5. M.O.R. NOTES

NORFOLK SOUTHERN
.2 PER DAY (FREIGHT)*
.2 PER NIGHT (FREIGHT)*

*NO PASSENGER SERVICE IS INVOLVED.

THE PAVEMENT AND REHABILITATION CONTRACT MILLING AND FINAL OVERLAY WILL TIE INTO THE R/R CROSSING AT THE R.O.W. LIMITS (TYPICALLY AT EXISTING HOT-MIX JOINT IF PRESENT.)

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CENTRAL PAVEMENT & REHABILITATION, SOUTH I-III, 2012
MAINTENANCE

CONTRACT QUANTITIES SUMMARY SHEET

202000	EXCAVATION AND EMBANKMENT	67.00 C.Y.
208000	EXCAVATION AND BACKFILLING FOR PIPE TRENCHES	4.00 C.Y.
209003	BORROW, TYPE C	2.50 C.Y.
212001	UNDERCUT EXCAVATION, PATCHING	8.00 C.Y.
302005	GRADED AGGREGATE BASE COURSE, TYPE B	477.00 TON
302008	GRADED AGGREGATE BASE COURSE, TYPE B, PATCHING	9.00 C.Y.
401696	ENTRANCE, DRIVEWAY AND INTERSECTING STREET PAVING SURCHARGE	320.00 TON
401801	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (CARBONATE STONE)	10,110.00 TON
401823	WMA, SUPERPAVE, BITUMINOUS CONCRETE BASE COURSE, 160 GYRATIONS, PG 64-22, PATCHING	734.00 TON
401827	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 64-22 (NON-CARBONATE STONE)	1,402.00 TON
401833	WMA, SUPERPAVE, TYPE C, 160 GYRATIONS, PG 76-22, (NON-CARBONATE STONE)	16,005.00 TON
402000	HOT-MIX BITUMINOUS CONCRETE AND/OR COLD-LAID BITUMINOUS CONCRETE (TRM)	228.00 TON
406001	HOT-MIX PATCHING	4,600.00 SY-IN
503001	PATCHING P.C.C. PAVEMENT, 6' TO 15', TYPE A	320.00 S.Y.
503006	DOWEL BARS	640.00 EACH
503501	CRACK AND JOINT SEALING LESS THAN 3/4" WIDE	1,700.00 L.F.
503503	** PATCHING CONCRETE	2,528.00 SY-IN
701010	PORTLAND CEMENT CONCRETE CURB, TYPE 1-8	4,500.00 L.F.
701011	PORTLAND CEMENT CONCRETE CURB, TYPE 2	240.00 L.F.
701022	INTEGRAL PORTLAND CEMENT CONCRETE CURB & GUTTER, TYPE 3-8	120.00 L.F.
705001	P.C.C. SIDEWALK, 4"	4,000.00 S.F.
705002	P.C.C. SIDEWALK, 6"	2,000.00 S.F.
705007	SIDEWALK SURFACE DETECTABLE WARNING SYSTEM	920.00 S.F.
705008	CURB RAMP, TYPE 1	3,240.00 S.F.
705009	CURB RAMP, TYPE 2, 3, AND/OR 4	7,980.00 S.F.
705010	CURB RAMP, TYPE 5	98.00 S.F.
708060	REPLACE DRAINAGE INLET GRATE(S)	31.00 EACH
708062	FURNISH DRAINAGE INLET FRAME(S)	31.00 EACH

DELAWARE DEPARTMENT OF TRANSPORTATION

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CENTRAL PAVEMENT & REHABILITATION, SOUTH I-III, 2012
MAINTENANCE

CONTRACT QUANTITIES SUMMARY SHEET

710001	ADJUSTING AND REPAIRING EXISTING DRAINAGE INLET	119.00 EACH
710002	ADJUSTING AND REPAIRING EXISTING MANHOLE	50.00 EACH
716502	CONVERTING EXISTING CATCH BASIN TO DRAINAGE INLET	26.00 EACH
732004	TOPSOIL (TON)	736.00 TON
734013	PERMANENT GRASS SEEDING, DRY GROUND	8,283.00 S.Y.
743003	ARROWPANELS, TYPE C	94.00 EA-DY
743004	FURNISH AND MAINTAIN PORTABLE CHANGEABLE MESSAGE SIGN	70.00 EA-DY
743005	FURNISH AND MAINTAIN PORTABLE LIGHT ASSEMBLY	374.00 EA-DY
743007	** TRAFFIC OFFICERS	935.00 HOUR
743010	FURNISH AND MAINTAIN TRUCK MOUNTED ATTENUATOR, TYPE II	99.00 EA-DY
743051	** FLAGGER, KENT COUNTY, STATE	5,813.00 HOUR
743063	** FLAGGER, KENT COUNTY, STATE, OVERTIME	872.00 HOUR
744505	ADJUST OR REPAIR EXISTING CONDUIT JUNCTION WELL	3.00 EACH
746774	SUPPLY AND INSTALLATION OF LOOP DETECTOR WIRE	10,220.00 L.F.
746776	LOOP DETECTOR SPLICE	108.00 EACH
748015	PERMANENT PAVEMENT STRIPING, SYMBOL/LEGEND ALKYD-THERMOPLASTIC	6,242.00 S.F.
748019	TEMPORARY MARKINGS, PAINT, 4"	279,810.00 L.F.
748026	TEMPORARY MARKINGS, PAINT SYMBOL/LEGEND	12,466.00 S.F.
748027	PERMANENT PAVEMENT STRIPING, ALKYD-THERMOPLASTIC, 12"	600.00 L.F.
748502	RAISED/RECESSED PAVEMENT MARKER	476.00 EACH
748529	RETROREFLECTIVE PREFORMED PATTERNED MARKINGS, SYMBOL/LEGEND	32.00 S.F.
748548	PERMANENT PAVEMENT STRIPING, EPOXY RESIN PAINT, WHITE/YELLOW, 5"	319,715.00 L.F.
748554	PREFORMED RETROREFLECTIVE THERMOPLASTIC PAVEMENT MARKINGS, PEDESTRIAN SYMBOL	11.00 EACH
749687	INSTALLATION OR REMOVAL OF TRAFFIC SIGN(S) ON SINGLE SIGN POST	171.00 EACH
749688	INSTALLATION OF 4" DIAMETER HOLE, LESS THAN OR EQUAL TO 6" DEPTH	43.00 EACH
749689	INSTALLATION OF 4" DIAMETER HOLE, GREATER THAN 6" DEPTH	6.00 EACH
750000	ADJUST WATER VALVE BOXES	32.00 EACH
758000	REMOVAL OF EXISTING PORTLAND CEMENT CONCRETE PAVEMENT, CURB, SIDEWALK, ETC.	1,005.00 S.Y.

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CENTRAL PAVEMENT & REHABILITATION, SOUTH I-III, 2012
MAINTENANCE

CONTRACT QUANTITIES SUMMARY SHEET

760507	PROFILE MILLING, HOT-MIX	456,302.00 SY-IN
761001	BUTT JOINTS, HOT MIX	475.00 S.Y.
762001	SAW CUTTING, HOT MIX	13,640.00 L.F.
762002	SAW CUTTING, CONCRETE, FULL DEPTH	1,457.00 L.F.
763000	INITIAL EXPENSE	LUMP SUM
763502	MAINTENANCE OF RAILROAD TRAFFIC	1.00 L.S.
763621	CONSTRUCTION ENGINEERING, RE-SURFACING	1.00 L.S.
763643	MAINTENANCE OF TRAFFIC, ALL INCLUSIVE	LUMP SUM

** DENOTES FIXED PRICE ITEM

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